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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,801	08/29/2001	Yoshiro Yamaguchi	110491	4697
25944	7590	02/08/2006	EXAMINER	
OLIFF & BERRIDGE, PLC			DINH, DUC Q	
P.O. BOX 19928			ART UNIT	
ALEXANDRIA, VA 22320			PAPER NUMBER	

2674

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/940,801	Applicant(s) YAMAGUCHI ET AL.	
	Examiner DUC Q. DINH	Art Unit 2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 28, 2005 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 8 recites the limitation "plural colors" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8, 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon, II et al. (U. S. Patent No. 6,271,823), hereinafter Gordon, in view of Hou et al. (U. S. Patent No. 6,113,810), hereinafter Hou.

In reference to claim 1, Gordon discloses an image display device comprising:

a display substrate(2);

a back substrate (4);

an electrode (20) formed on the display substrate(2);

a spacer(24) for forming a gap between the display substrate and the back substrate;

two kinds of particles differing in color and polarity (col. 2, lines 45-51) and sealed between the display substrate and the back substrate (col. 6, lines 64-66);

a filter (30,32,34) of plural colors for transmitting light of a specific wavelength;

Gordon does not disclose the particles are directly in contact with at least one of the lower surface of the display substrate and upper surface of the back substrate.

Hou discloses in Fig. 1 the particles of a display are directly in contact with at least one of the lower surface of the display substrate and upper surface of the back substrate.

It would have been obvious for one of ordinary skill in the art at the time of the invention to recognize when electrical charges is applied to the electrodes of the display, the particles are in directly contact with the upper substrate to address their optical states according with the electrical applied to the display electrodes.

In reference to claim 2, Hou discloses the two particles are white and black as claimed.

In reference to claims 3-4, Hou discloses the particles white electrophoretic particles 22 and black electrophoretic particles 24 may be formed from crosslinked polymer particles using a two stage dispersion polymerization technique with and without staining with a metal oxide, respectively [col.3, lines 45-55].

In reference to claim 5, Gordon discloses in Fig. 1 the substrate and the filter are integrated.

In reference to claim 6, Gordon discloses the color filter medium can, for example, be a light-transmissive colored filter element, a colored light-reflecting panel, or the pigment suspension fluid itself can be colored and serve as the color filter medium (col.3, lines 35-40).

In reference to claim 7, Gordon discloses the filter is divided into 3 regions for red, green, and blue colors (Fig. 1).

In reference to claim 8, Gordon discloses the color filter is arranged in stripes (Fig. 1)

In reference in claim 10, Gordon discloses the color filter medium selects the color reflected by each cell. The color filter medium can, for example, be a light-transmissive colored filter element disposed across the horizontal area of the cell, either above the suspension or below the suspension on top of the light-reflecting panel. An appropriately colored pigment suspension fluid, a colored light-reflecting panel, a color diffuser, or a painted surface can also serve as the color filter medium (col. 8, lines 8-18).

In reference to claim 11, Gordon discloses the filter is divided into plural chromatic region (R, G, B; see Fig. 1) and the barrier 22 as achromatic region between filters (Fig. 1).

In reference to claim 12, Gordon discloses the transparent achromatic wall 24 as claimed.

In reference to claim 13, Gordon discloses electrodes 8 and 20 as claimed.

6. Claims 14-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon and Hou as applied to claims 1-8 and 10-13 and further in view of Comiskey (U. S. Patent No. 6,376,828).

In reference to claims 14 and 15, the combination of Gordon and Hou do not disclose the irradiating for the display. Comiskey disclose and front light for an electrophoretic display for emitting white light to the inside of the display medium for the display substrate side of the image display medium (see Fig. 1).

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide the light source to illuminate the display in the combination of Gordon and Hou as taught by Comiskey for lighting the display when ambient light decreases (col. 8, lines 15-20 of Comiskey).

In reference to claims 16-18, refer to the rejection as applied to claims 14-15. In addition, Comiskey discloses the light transmissive element 8 may comprise additional elements to enhance the versatility of the illuminated nonemissive electronic display 1. In one embodiment of the invention, shown in FIG. 1, a light polarizing film 16 (spectral means) is provided adjacent first surface 8a to increase the uniformity of light passing through the second face 8b and reaching the viewer 20. In another embodiment of the invention, a red/green/blue absorptive filter (not shown) is provided adjacent the first face 8a or second face 8b of the light transmissive element 8 to alter the wavelength of light passing through the first face 8a or second face 8b thereby creating a colored display (col. 6, line 62 – col. 7, line 6).

7. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon and Hou as applied to claims 1-9 above and further in view of Shirochi (U. S. Patent No. 5,872,654)

In reference to claim 9, the combination Gordon and Hou do not disclose the filter is on of the matrix mosaic type. Shirochi discloses color filters corresponding to three primary colors

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are placed relative to each pixel and the same color pixels are arranged having the mosaic type as claimed.

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to learn the teaching of Shirochi, i.e., color filters corresponding to three primary colors are placed relative to each pixel and the same color pixels are arranged having the mosaic pattern for providing a display device in which the diffusion for more than three pixels can be easily obtained (col. 2, lines 34-37 of Shirochi).

Response to Arguments

8. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection. As elaborated above, Gordon discloses a display device having display substrates and particles of different colors and polarities disposed in between and filler of different colors for transmitting light of specific wavelength and Hou discloses display particles are directly contact with at least one of a lower surface of the display substrate and upper surface of the back substrate as claimed. Therefore, the rejection is maintained.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DUC Q. DINH** whose telephone number is **(571) 272-7686**. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Edouard Patrick** can be reached on **(571)272-7603**.

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Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:


(703) 872-9306 (for Technology Center 2600 only)

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,
Arlington, Va Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the Technology Center 2600 Customer Service Office whose telephone
number is (703) 305-4700.

DUC Q DINH
Examiner
Art Unit 2674

DQD
October 30, 2004



PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER